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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,263	12/28/2005	Young-shig Shim	122996-05167030	3413
22429 7590 09/17/2007 LOWE HAUPTMAN HAM & BERNER, LLP 1700 DIAGONAL ROAD SUITE 300 ALEXANDRIA, VA 22314			EXAMINER DUNWIDDIE, MEGHAN K	
			ART UNIT 2875	PAPER NUMBER
			MAIL DATE 09/17/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/562,263	Applicant(s) SHIM ET AL.	
	Examiner Meghan K. Dunwiddie	Art Unit 2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-8, 10-12 and 14-17 is/are rejected.
- 7) ☒ Claim(s) 4, 9 and 13 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>07/18/06</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

This Office Action is a Non-Final Rejection in response to the application filed on December 28, 2005 by **Shim** et al.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on July 28, 2006 is in compliance with the provisions of 37 CFR 1.97, and accordingly, the information disclosure statement has been considered by the examiner.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 5-8, 10-12, and 14-17 rejected under 35 U.S.C. 102(b) as being anticipated by **Campbell** et al. (US 6354709).

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5. In reference to Claim 1, **Campbell** et al. shows a prism sheet of a backlight unit for an LCD, the prism sheet having:

- A structural surface on one side thereof and a flat surface opposing the structural surface on another side thereof, the structural surface including a linear arrangement of right-angled isosceles triangular prisms arranged in parallel and configured to form a plurality of peaks and valleys, each of the prisms having perpendicular surfaces that slant by an angle of approximately 45 degrees with respect to the flat surface [See column 3 lines 1-13 in reference to Figure 2],
- Wherein the structural surface of at least one of the prism sheets is configured to have non-planar peaks with a maximum height and a minimum height along a length direction of the peak, and a curved layer having the same cycle as a cycle of height variation of the peak is formed at a boundary surface between the structural surface and the flat surface so as to maintain the right-angled isosceles triangular prisms formed due to a difference between the highest point and the lowest point of each of the peaks to have a predetermined size so that a distance between the valleys is uniform along the length direction [See column 5 lines 5-39 in reference to Figure 5].

6. In reference to Claims 2 and 11, **Campbell** et al. shows:

- Wherein the peak is shaped in a streamline curvature in which a difference between the maximum height to the minimum height is shown in a fluent curvature [See Figures 8 and 10].

7. In reference to Claims 3 and 12, **Campbell** et al. shows:
 - A streamline curvature formed due to a difference between heights of the peaks has a cycle, which is repeated periodically or non-periodically [See Figures 8 and 10].
8. In reference to Claims 5 and 14, **Campbell** et al. shows:
 - The prism sheet is made of transparent and flexible polymer film [See column 3 lines 14-23].
9. In reference to Claims 6 and 15, **Campbell** et al. shows:
 - The polymer film is made of any one polymer selected from the group consisting of acrylate, polycarbonate, polyester, and polyvinyl chloride [See column 3 lines 14-23].
10. In reference to Claims 7 and 16, **Campbell** et al. shows:
 - The polymer film is multi-layer film in which acrylate is laminated on polycarbonate [See column 5 line 58-67 – column 6 line 21].
11. In reference to Claims 8 and 17, **Campbell** et al. shows:
 - The polymer film is a multi-layer film in which acrylate is laminated on polyester [See column 5 line 58-67 – column 6 line 21].

12. In reference to Claim 10, **Campbell** et al. shows a backlight unit having:

- Two or more prism sheets which prisms are crossed with each other by a predetermined angle, each the prism sheets having a structural surface on a side thereof and a flat surface opposing the structural surface on another side thereof, the structural surface including a linear arrangement of right-angled isosceles triangular prisms arranged in parallel and configured to form a plurality of peaks and valleys, each of the prisms having perpendicular surfaces that slant by an angle of approximately 45 degrees with respect to the flat surface [See column 3 lines 1-13 in reference to Figure 2],
- Wherein the structural surface of at least one of the prism sheets is configured to have non-planar peaks with a maximum height and a minimum height along a length direction of the peak, and a curved layer having the same cycle as a cycle of height variation of the peak is formed at a boundary surface between the structural surface and the flat surface so as to maintain the right-angled isosceles triangular prisms formed due to a difference between the highest point and the lowest point of each of the peaks to have a predetermined size so that a distance between the valleys is uniform along the length direction [See column 5 lines 5-39 in reference to Figure 5].

Allowable Subject Matter

13. Claims 4, 9, and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

14. **Katsu** et al. (US 6692133) discloses a plane light source apparatus having a plurality of prisms sheets with right isosceles triangular concave and convex portions along the prism sheets.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meghan K. Dunwiddie whose telephone number is (571) 272-8543. The examiner can normally be reached on Monday through Friday 8 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MKD

/Stephen F. Husar/
Primary Examiner